# ATTORNEY DOCKET NO. 2001180-0075 (HU1917-01 CIP) IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Schreiber, et al.

Examiner:

TBA

Serial No.:

**TBA** 

Art Unit:

**TBA** 

Filing Date:

July 17, 2003

Title:

DIOXANES AND USES THEREOF

Mail Stop Patent Application Commissioner For Patents P. O. Box 1450 Alexandria, VA 22313

Sir:

#### **STATEMENT**

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant requests consideration of this Information Disclosure Statement.

## Type of Statement

The present Information Disclosure Statement is:

- [X] An original Information Disclosure Statement; or
- [ ] A supplemental Information Disclosure Statement.

# Compliance with 37 CFR § 1.97

The present Information Disclosure Statement is being filed: Pursuant to 37 CFR § 1.97(b); no fee or certification is required: [X]Within three months of the filing date of a national application other than [X]a continued prosecution application under § 1.53(d); Within three months of the date of entry of the national stage as set forth [ ] in § 1.491 in an international application; Before the mailing of a first Office action on the merits; or [ ] Before the mailing of a first Office action after the filing of a request for [] continued examination under § 1.114. Pursuant to 37 CFR § 1.97(c) after the dates listed above but before the mailing [ ] date of any of a final action under § 1.113, a notice of allowance under § 1.311, or an action that otherwise closes prosecution in the application; Applicant hereby either: Certifies that either: each item of information contained in the information disclosure [] statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement; or That no item of information contained in the information [ ] disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making

reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.; or

			the information disclosure statement, or		
	[]	Include	es herewith the fee set forth in § 1.17(p).		
[]	Pursuant to 37 CFR § 1.97(d), after the mailing date of any of a final action under				
ΓJ	§ 1.113, a notice of allowance under § 1.311, or an action that otherwise closes				
prosecution in the application; Applicant hereby both:					
[ ] Certifies that either:					
	-	[]	each item of information contained in the information disclosure		
			statement was first cited in any communication from a foreign		
			patent office in a counterpart foreign application not more than		
			three months prior to the filing of the information disclosure		
			statement; or		
		[]	That no item of information contained in the information		
			disclosure statement was cited in a communication from a foreign		
			patent office in a counterpart foreign application, and, to the		
			knowledge of the person signing the certification after making		
			reasonable inquiry, no item of information contained in the		
			information disclosure statement was known to any individual		
			designated in § 1.56(c) more than three months prior to the filing of		
			the information disclosure statement.; and		

## Content of the Information Disclosure Statement

Applicant hereby makes of record in the above-identified application the reference(s) listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

Applicant includes copies of references as indicated below:

- [X] A copy of each cited reference not indicated with an asterisk is included;
- [X] Copies of references indicated with an asterisk on the attached form PTO-1449 are not included pursuant to 37 CFR § 1.98(d) because they were previously provided to the United States Patent Office in an Information Disclosure Statement that complies with 37 CFR § 1.98(a)-(c) and was submitted in the following patent application that is relied upon in the present case for an earlier effective filing date under 35 USC § 120:

Serial Number	Filing Date	Status
10/144,316	May 9, 2002	Pending

[ ] Copies of English translations of one or more non-English references are included.

Applicant hereby makes the following additional information of record in the aboveidentified application:

Applicant certifies that the Information Disclosure Statement either:

[	]	Does not contain non-English language citations;

[	]	Does contain non-English language citations, of which the following is a concise
		explanation:

Includes one or more translations of a non-English citation. []

### Remarks

The submission of this Information Disclosure Statement should not be construed as a representation that a search has been made.

The submission of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56(b).

The submission of this Information Disclosure Statement shall not be construed as a representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

It is respectfully requested that:

- The Examiner consider completely the cited information, along with any other 1. information, in reaching a determination concerning the patentability of the present claims;
- The enclosed form PTO-1449 be signed by the Examiner to evidence that the 2. cited patent(s) and publication(s) has (have) been fully considered by the Patent and Trademark Office during the examination of this application; and
- The citations for the patent(s) and publication(s) be printed on any patent which 3. issues from this application.

Notwithstanding any statements by Applicants, the Examiner is urged to form his or her own conclusions regarding the relevance of the cited reference(s).

Respectfully submitted,

Nadége M. Lagneau, Ph.D.

Reg. No. 51,908

Dated: July 17, 2003

PATENT GROUP CHOATE, HALL & STEWART **Exchange Place** 53 State Street Boston, Massachusetts 02109

Tel: (617) 248-5000 Fax: (617) 248-4000

#### **CERTICATE OF MAILING**

"Express Mail" mailing label number EL6030(08114)

Oute of Deposit: 4/1403

I hereby certify that this correspondence is being deposited with the United States Postal Service as "Express Mail Post Office to Address" service under 37 CFR 1.10 on the date indicated above and is addressed to:

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Form PTO-14	Comme		Atty. Docket: 2001180-0075	In re App	In re Application No. TBA		
(REV. 8-83)	Patent a	nd Trademark Office	(HU 1917-01 CIP) Applicant: Schreiber, et al				
INFORMATI	ON DISCLOSURE ST	CATEMENT		Group:			
	veral sheets if necessary		Filing Date: July 17, 2003	TBA			
U.S. PATENT DOCUMENTS			July 17, 2003				
	U.S. Patent No.	Applicant	Issue Date	Class	Subclass		
Examiner's Initials	U.S. Patent No.				22		
	*5,393,741	Pettersen et al.	February 28, 1995	514	23		
	*5,238,781	Schädeli	August 24, 1993	430	270		
	*5,059,698	Schulthess et al.	October 22, 1991	549	375		
	* 4,639,462	Krämer et al.	January 27, 1987	514	383		
U.S. PATENT	APPLICATIONS						
Examiner's Initials:	Serial Number:	Applicant:	Filing Date:	Group:	Art Unit:		
FOREIGN PA	ATENT DOCUMENTS	S					
Examiner's	Document No.	Country	Date	Translation			
Initials				Yes	No		
	* DE 3242252	Germany	May 17 1984				
	*EP 0 322 335	Europe	28 June 1989		_		
ľ	*JP 9-124918	Japan	13 May 1997				
	*JP 8-311321	Japan	26 November 1996				
	*WO 00/20415	PCT	13 April 2000				
	*WO 98/16830	PCT	23 April 1998				
	*WO 97/35990	PCT	02 October 1997				
OTHER DOO	CUMENTS						
Examiner's Initials		Author, Title, Date, Perf					
	*Aggarwal, et al., "Trifluoromethanesulfonic Acid, an Efficient Catalyst for the Hetero Diels-Alder Reaction and an Improved Synthesis of Mefrosol", <i>Tetrahecron Letters</i> , <b>38</b> (14):2569-2572, 1997.						
	*Antonjuk, et al., "Asymmetric Induction in the Additions of Anions of Allylic Sulfoxides to Benzaldehyde", <i>Aust J. Chem.</i> , <b>33</b> :2635-2651, 1980.						
	*Blackwell, et al., "A One-Bead, One-Stock Solution Approach to Chemical Genetics: Part 1" Chemistry & Biology, 8:1167-1182, 2001.						
	*Clemons, et al., "A One-Bead, One-Stock Solution Approach to Chemical Genetics: Part 2", Chemistry & Biology, 8:1183-1195, 2001.						

Form PTO-144	49 U.S. Department of	Atty. Docket:	In re Application No.	
(REV. 8-83)	Commerce Patent and Trademark Office	2001180-0075 (HU 1917-01 CIP)	ТВА	
		Applicant: Schreiber, et al		
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Filing Date: July 17, 2003	Group: TBA	
<del></del>	*Grozinger, et al., "Deacetylase Enzymes: B Inhibitors", <i>Chemistry &amp; Biology</i> , 9:3-16, 20	Biological Functions and the Use of Small-Molecule 002.		
	Haggarty, et al., "Domain-selective small-m (HDAC6)-mediated tubulin deacetylation",			
	Haggarty, et al; "Multidimensional Chemica Synthesis-Derived Deacetylase Inhibitors Us 10:383-396, 2003.	al Genetic Analysis of Diversing Cell-Based Assays", C	rsity-Oriented hemistry & Biology,	
	*Hunter, et al., "An Enantioselective Synthe Carboxylate Esters via Osmium, Palladium, 2001.	sis of Benzylidene-Protecte and Base Catalysis", Org L	d syn-3, 5-Dihydroxy etter, <b>3</b> (7):1049-1052,	
-	*Imamoto, et al., "Preparation and Synthetic Stereoselective Aldol-Type Reaction in the I Chem. 49:1105-1110, 1984.			
	*Imamoto, et al., "The Reaction of Aryl Met Trimethylsilyl Polyphosphate (PPSE). Forma Dioxe", <i>Tetrahedron Letters</i> , <b>23</b> (14):1467-14	ation of MESO-2,4,6-Trisul	Aldehydes in ostituted-5-Acyl-1,3-	
	*Johnstone, R. "Histone-Deacetylase Inhibite Nature, 1:287-299, 2002.	ors: Novel Drugs for the Tr	eatment of Cancer",	
	Koeller, et al., "Chemical Genetic Modifier Screens: Small Molecule Trichostatin Sup as Probes of Intracellular Histone and Tubulin Acetylation", <i>Chemistry &amp; Biology</i> , 10:: 2003.			
	*Kuruvilla, et al., "Dissecting Glucose Signa Molecule Microarrays", <i>Nature</i> , <b>416</b> :653-657		ed Synthesis and Small-	
	*Lin, et al., "Generation And Aldol Reaction Mo(CO) <sub>2</sub> Cp Moiety. A New Approach to the Vinyl-3 Hydroxyl-Tetrahydrofuran", <i>Tetrahe</i>	e Stereoselective Synthesis	of 1,3,5-Triol and 2-	
	*Lin, et al., "Role of the Histone Deacetylase Nature, <b>391</b> :811-814, 1998.	e Complex in Acute Promye	elocytic Leukaemia",	
	*Magnaghi-Jaulin, et al., "Retinoblastoma Pr Histone Deacetylase", <i>Nature</i> , <b>391</b> :601-604,		on by Recruiting a	
	*Marks, et al., "Histone Deacetylases and Ca Reviews/Cancer, 1:194-202, 2001.			
	*Pyne, et al., "Reactions of Lithiated N-Tosy Aldehydes", <i>Sulfur Letters</i> , <b>20</b> (6):255-260, 19	l S-Phenyl S-2- Propenyl S 997.	ulfoximine with	
	*Schreiber, et al., "Chemical Genetics Result Chemistry", <i>Bioorganic &amp; Medicinal Chemis</i>		hetic Organic	
	*Schreiber, et al., "Target-Oriented and Diver Discovery", <i>Science</i> , <b>287</b> :1964-1969, 2000.	rsity-Oriented Organic Synt	thesis in Drug	

Form PTO-14 (REV. 8-83)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket: 2001180-0075 (HU 1917-01 CIP)	In re Application No. TBA	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant: Schreiber, et al		
		Filing Date: July 17, 2003	Group: TBA	
	*Sternson, et al., "Synthesis of 7200 Small M Histone Deacetylase Inhibitors Trichostatin at 2001.		•	
	*Sternson, et al., "Split-Pool Synthesis of 1,3-Single Compounds Sufficient for Multiple Ph. Chem. Soc. 123:1740-1747, 2001.			
	*Tallarico, et al., "An Alkylsilyl-Tethered, Hi Diversity-Oriented Synthesis for One-Bead, O Chem. 3:312-318, 2001.			
	*Taunton, et al., "Synthesis of Natural and Modified Trapoxins, Useful Reagents for Exploring Histone Deacetylase Function", J. Am. Chem. Soc. 118:10412-10422, 1996.			
	*Uong, et al., "Stereocontrolled Functionlizat A New Approach to the Stereoselective Synth Commun., 1285-1287, 1990.			
	*Vong, et al., "Regio- and Stereocontrolled Functionalization of Acyclic Molybdenum -η <sup>3</sup> - Allyl Complexes", <i>J. Am. Chem. Soc.</i> <b>113</b> :573-582, 1991.			
	Wong, et al., "Structural Biasing Elements for In-Cell Histone Deacetylase Paralog Selectivity", J. Am. Chem. Soc., 125:5586-5587, 2003.			
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EXAMINER		DATE CONSIDER	RED	
	nitial if citation considered, whether or not citat if not in conformance and not considered. Incl			

to applicant.

<sup>\*</sup> asterisk indicates submitted with parent application No.: 10/144,316, filed May 9, 2002. 3582765\_1.DOC